

Notice of Allowability

Application No.

10/080,396

Examiner

Connie C. Yoha

Applicant(s)

SHI ET AL.

Art Unit

2818

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/04/03.
2. ☒ The allowed claim(s) is/are 5-8 and 10-14.
3. ☒ The drawings filed on 22 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Connie C. Yoha
CONNIE C. YOHA
PRIMARY EXAMINER

DETAILED ACTION

Response to Arguments

1. Examiner took notice of the remarks and amendments made by applicant filed on 11/4/03.

Response to Amendment

2. This office action is in response to Amendment filed on 11/4/03.

Claim 5, 8, and 10 are amended.

Claims 1-4 and 9 are canceled .

Claims 13 and 14 are newly added.

3. Claims 5-8, and 10-14 are pending.

Allowable Subject Matter

4. Claims 5-8, and 10-14 are allowed.

5. Claims 5-8, and 10-14 are considered allowable since prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations of a magnetic memory unit having in combination with other features, wherein the plurality of magnetic tunneling junctions includes six magnetic tunneling junctions and wherein the magnetic memory is capable of storing eight bits. Prior also does not teach wherein the plurality of magnetic tunneling junctions includes eleven magnetic tunneling junctions and wherein the magnetic memory is capable of storing sixteen bits.

Prior does not teach the method for using a magnetic memory cell having in combination with other steps, of programming a reference magnetic tunneling junction. Because the reference magnetic tunneling junction is programmed, it allows the magnetic tunneling junctions

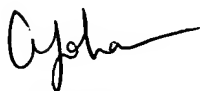
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to storing a greater number of bits in the magnetic tunneling junction, such as the number of bits being greater than the first number plus one.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-1799. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, David Nelms, can be reached at (571) 272-1787. The fax phone number for this Group is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-0956.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C.Yoha

March 2004



CONNIE C. YOH
PRIMARY EXAMINER